

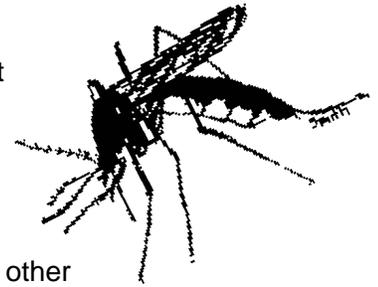
Mosquitoes, West Nile Virus and You

How common is West Nile Virus in Indiana?

Health officials report that the virus is not only present, but is widespread throughout Indiana.

How is it transmitted?

People get West Nile Virus only from the bite of mosquitoes (primarily the Culex species) infected with the virus. Mosquitoes become infected if they bite a bird that carries the virus. Infected mosquitoes then transmit West Nile Virus to humans or to other birds and animals. West Nile Virus is not spread by person-to-person contact or directly from birds to people.



How did it get here in the first place?

West Nile Virus is commonly found in Africa, West and Central Asia, and the Middle East. It is not known how the virus was introduced to the United States. It first appeared in the US in the New York metropolitan area in the fall of 1999. Over the past two years, the virus has quickly spread through most of the states east of the Mississippi River, as well as Iowa, Missouri, Arkansas, and Louisiana.

West Nile Virus was first identified in Indiana in late summer of 2001. In the same year it was identified in Illinois, Iowa, Kentucky, Missouri and Wisconsin.

How likely is it that a mosquito bite will result in infection?

The chance that one mosquito bite will be from an infected mosquito is very small. Even in areas where West Nile Virus is actively transmitted, very few mosquitoes are infected, usually less than one in 500.

What are the symptoms?

In humans, symptoms generally occur three to 15 days following the bite of an infected mosquito. You should see a doctor immediately if you develop high fever, confusion, muscle weakness, or severe headaches.

Mild cases may cause a slight fever, rash, swollen lymph nodes, conjunctivitis (irritation of the eye), or headache. Patients with mild symptoms are likely to recover completely and do not require any specific medication or laboratory testing.

Who is at Risk?

Persons at highest risk for serious illness are those 50 years old or older. The very young and those with compromised immune systems may also be susceptible. A 1999 survey of residents in the most affected area of New York City showed that about 3 percent of residents had been infected with West Nile Virus, but either had no illness or only a mild illness.

You can reduce the chance of getting mosquito bites by...

- Using an insect repellent that contains DEET.
- Wearing shoes, socks, long pants and a long-sleeved shirt when outdoors for long periods of time, or from dusk to dawn, when mosquitoes are most active.
- Wearing light colored clothing of tightly woven materials to keep mosquitoes away from the skin.
- Tucking pant legs into shoes or socks; buttoning collars.
- Using mosquito netting when sleeping outdoors or in an unscreened structure.

You can reduce mosquito populations around your home by.....

- Eliminating areas of standing water available for mosquito breeding in or near your property.
- Repairing failed septic systems.
- Keeping grass cut and shrubbery trimmed.
- Disposing of old tires, cans, plastic containers, ceramic pots or other unused containers that can hold water.
- Cleaning clogged roof gutters, particularly if leaves tend to plug up the drains.
- Aerating ornamental pools, or stocking them with predatory fish.

What about other animals?

Wild and domestic animals, such as horses, can be infected with West Nile Virus. Sick animals may have fever, weakness, poor muscle coordination, muscle spasms and neurological disorders such as seizures or a change in temperament. If your animal is sick, contact a veterinarian. The veterinarian will evaluate the animal, provide treatment and collect samples for laboratory analysis to determine the cause.

What if I find a dead bird?

If you find a dead blue jay, crow, falcon, or hawk, check with your local health department to find out if they are collecting birds from your area to be sent to the State Department of Health's laboratory for testing.

Can I get West Nile Virus from handling a dead bird?

Although there is no evidence of human infection from handling animals infected with West Nile Virus, the federal Centers for Disease Control and Prevention recommends that anyone handling sick or dead animals avoid bare-hand contact. Hunters should use gloves when cleaning game animals and persons disposing of dead birds should use a shovel, gloves or double plastic bags to place carcasses in a garbage can. After disposing of the carcass, hands should be thoroughly washed with soap and warm water.

Did you know....

Mosquitoes are an important link in the food chain. Adult mosquitoes provide food for birds, dragonflies and spiders. Mosquito larvae, often called "wigglers" or "wrigglers," provide food for aquatic insects and fish.



The wing-beat frequency of male and female mosquitoes is generally different, so the humming sound mosquitoes make is different in males and females.

Some species of mosquitoes overwinter as adults. Some overwinter as larvae. Most overwinter as eggs that hatch in the spring.

Mosquitoes lay their eggs on the surface of the water. Some species lay them singly; some lay them in concave rafts.

Only female mosquitoes bite. Male mosquitoes do not have mouthparts developed for sucking blood. Males feed on plant juices, nectar and other liquids. The female needs a blood meal for the development of her eggs.

The female mosquito can mate once and lay eggs several times, each preceded by a blood meal. The male dies soon after mating.

There are about 3000 species of mosquitoes worldwide. There are about 150 species in North America.

The itchy welt that appears after a mosquito bite is an allergic reaction to the saliva injected by the female mosquito. The saliva helps prevent the blood from clotting while she is feeding.

Mosquitoes find us by following the carbon dioxide we exhale. They use other chemical cues, such as the presence of folic acid to decide if we are satisfactory hosts. Chemicals like hair spray, perfumes and soaps can mask these cues in some individuals.

Mosquitoes function best at 80 degrees and cannot function below 50 degrees.



From the New Jersey Mosquito Home Page, Rutgers University Entomology Dept.

Is infection possible from eating an infected game bird?

Proper cooking kills West Nile Virus, so there is no danger from eating wild game that may be infected.

Who is keeping track of the virus in Indiana?

The Indiana State Department of Health (ISDH) has had a sophisticated disease surveillance system in place since 2000 to monitor mosquitoes and birds that can potentially carry West Nile Virus. Crows, blue jays, hawks, and falcons are highly sensitive to the virus and provide an early warning system for detecting West Nile Virus activity in a community.

How can I find out more?

Daily updates on positive results for West Nile virus and a virus surveillance map are available on the State Department of Health's Web site at www.in.gov/isdh.

Information Source: Indiana State Department of Health

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